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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0304503N: SSN-688 and Trident Modernization-MIP							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	1.415	0.000	1.415	1.440	1.464	1.491	1.520	Continuing	Continuing
0775: Submarine Supt Equip Prog	0.000	0.000	1.415	0.000	1.415	1.440	1.464	1.491	1.520	Continuing	Continuing
A. Mission Description and Budget Item Justification											
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Submarine Support Equipment Program develops and improves submarine Electronic Warfare Support (EWS) technology, components, equipment, and systems that will increase submarine operational effectiveness, safety of ship, and survivability in an increasingly dense and sophisticated electromagnetic environment caused by the proliferation of complex radar, communications, and navigation equipment of potential adversaries. Enhancements are necessary for submarine EWS to be operationally effective in the following mission areas: Joint Littoral Warfare, Joint Surveillance, Space and Electronic Warfare and Intelligence Collection, Maritime Protection, and Joint Strike.											
The Submarine Sonar Improvement Program delivers block updates to Sonar Systems and improved Sensors installed on SSN 688, 688I, SSN 21, TRIDENT, Virginia, SSBN, and SSGN Class Submarines to maintain clear acoustical, tactical and operational superiority over submarine and surface combatants in all scenarios through detection, classification, localization and contact following. Current developments are focused on supporting Littoral Warfare, Regional Sea Denial, Battle Group Support, Diesel Submarine Detection, Surveillance, and Peacetime Engagement.											
Submarine Support Equipment Program was changed to a Military Intelligence Program beginning Fiscal Year 2011 under a new Program Element.											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0304503N: SSN-688 and Trident Modernization-MIP			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	1.415	0.000	1.415
Total Adjustments	0.000	0.000	1.415	0.000	1.415
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Program Adjustments	0.000	0.000	1.415	0.000	1.415
Change Summary Explanation					
Technical: Not applicable.					
Schedule: Not applicable.					
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.					

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0304503N: <i>SSN-688 and Trident Modernization-MIP</i>				PROJECT 0775: <i>Submarine Supt Equip Prog</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
0775: <i>Submarine Supt Equip Prog</i>	0.000	0.000	1.415	0.000	1.415	1.440	1.464	1.491	1.520	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>This program develops and improves techniques, components, equipment, and systems that will increase submarine operational effectiveness, safety of ship, and survivability in the increasingly dense and sophisticated electromagnetic environment caused by the proliferation of complex radar, communications, and navigation equipment of potential adversaries. Improvements are necessary for Submarine Electronic Warfare Support (ES) systems to be operationally effective in the following mission areas: Joint Littoral Warfare; Joint Surveillance, Space and Electronic Warfare and Intelligence Collection; Maritime Protection; Information Operations, Special Operations Force (SOF) Support; and Joint Strike. Efforts include: (1) Integration of the technology developed and transitioned from the Advanced Submarine Support Equipment Program (ASSEP), project F0770 into the tactical ES system; (2) Resolution of software trouble reports during technology updates, from fleet feedback reports, and Submarine Warfare Federated Tactical System (SWFTS)/Non Propulsion Electronic System (NPES) Tactical Local Area Network (TACLAN) migrations; (3) Integration, test, and installation of COTS technology for system enhancements.</p> <p>The Advanced Electronic Warfare Support (ES) Development Projects include the development of: PATRIOT Phase B - Low Probability of Intercept (LPI) Radar, LPI Direction Finding (DF), Distant ES Support and Remote Log-In, Specific Emitter Identification (SEI) Improvements, ES Vulnerability Tool, Integrated ES and ECS Radio Frequency Distribution Unit (RFDU), Multi-function Modular Mast (MMM) payloads, Mast Signature Reduction, PATRIOT Non-Scanning LPI Radar, Capability and Technical Initiatives, and next generation processes and radar wideband miniaturization.</p> <p>RDTE Funding line supports the entire AN/BLQ-10 ES procurement program. Average FY OPN and SCN hardware procurement yearly funds are \$100M.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Submarine Support Equipment Program						0.000	0.000	1.415	0.000	1.415	

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2011 Base Plans: Develop processor improvements, advanced EW tuners, pulse digitizer upgrade and IO payloads. Research and resolve AN/BLQ-10 SPRs. NPES and SWFTS software baseline changes.											
Accomplishments/Planned Programs Subtotals						0.000	0.000	1.415	0.000	1.415	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• OPN/256000: Submarine Supt Equip Prog	0.000	0.000	71.558	0.000	71.558	109.581	63.746	84.682	73.353	0.000	402.920
• SCN/201300: Virginia Class Submarine	0.000	0.000	5,132.688	0.000	5,132.688	4,730.396	4,778.041	6,127.475	6,301.397	0.000	27,069.997
• RDT&E/0303562N: Submarine Tactical Warfare	0.000	0.000	4.253	0.000	4.253	4.334	4.404	4.503	4.595	0.000	22.089
D. Acquisition Strategy											
AN/BLQ-10 (V) ES System - Procurements are executed/managed in accordance with the Acquisition Strategy Report (Rev 4) for AN/BLQ-10(V) ES System dtd 3/7/06 and the Acquisition Plan (Rev 6) for AN/BLQ-10(V) ES System dtd 3/7/06.											
E. Performance Metrics											
The RDD program goal is to respond to urgent operational needs within 30 days and provide for rapid development and fielding of prototype solutions within 270 days.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
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 Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/BLQ-10 ES Product Development	C/CPFF	Various Not Specified	0.000	0.000	Mar 2010	0.156	Mar 2011	0.000		0.156	Continuing	Continuing	Continuing
Systems Engineering and Test Support	WR	NUWC Newport RI	0.000	0.000	Mar 2010	0.962	Mar 2011	0.000		0.962	Continuing	Continuing	Continuing
Miscellaneous	Various/ Various	Various Not Specified	0.000	0.000	Mar 2010	0.255	Mar 2011	0.000		0.255	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		1.373		0.000		1.373			
Remarks													
 Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NAVSEA Not Specified	0.000	0.000		0.014	Mar 2011	0.000		0.014	0.000	0.014	0.014
SBIR Assessment	Various/ Various	Not Specified Not Specified	0.000	0.000		0.028	Mar 2011	0.000		0.028	0.000	0.028	0.028
Subtotal			0.000	0.000		0.042		0.000		0.042	0.000	0.042	0.042
Remarks Labor (Research) removed. No longer applicable.													

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	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals	0.000	0.000	1.415	0.000	1.415				
Remarks									

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																DATE: February 2010								
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT								
1319: Research, Development, Test & Evaluation, Navy								PE 0304503N: SSN-688 and Trident								0775: Submarine Supt Equip Prog								
BA 5: Development & Demonstration (SDD)								Modernization-MIP																
Fiscal Year	2010				2011				2012				2013				2014				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SSEP F0775 SCHEDULE																								
AN/BG-10 Baseline SWFTS and NPES Changes, SPR Resolution and Software Enhancements																								
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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
AN/BLQ-10 BASELINE CHANGES, SPR RESOLUTION, AND SOFTWARE ENHANCEMENT	2	2011	2	2015
Capability Insertions (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction)	2	2011	4	2015
Technical Insertions (Next Generation Processor, RADAR Wide Band Miniaturization, Advanced EW Tuners, Multifunction Modular Mast Payload)	2	2011	4	2015
PATRIOT Phase B	2	2010	1	2011

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